### National Perspective on Opportunities for Producing A AVF from Landfill Gas





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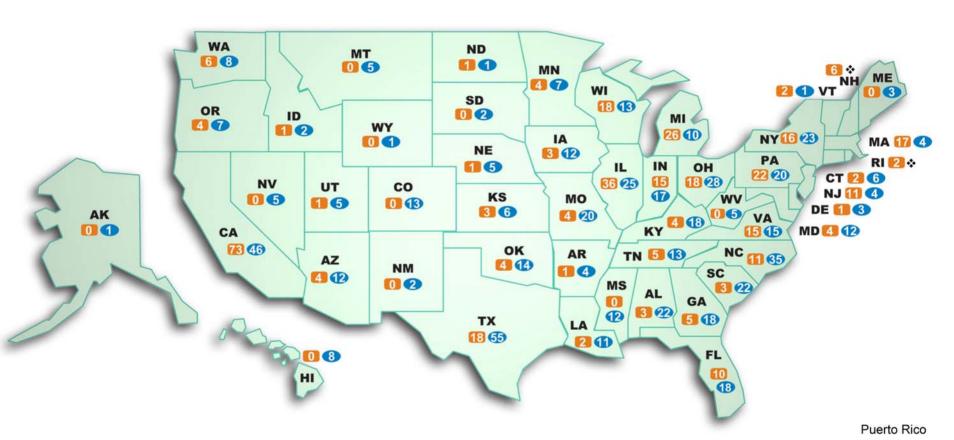
# Why Does EPA Care About LFG and AVF?



- Methane is a potent heat-trapping gas
- Landfills are the largest human-made source of methane in the U.S.
- Tens of thousands of diesel-fueled refuse trucks currently on the roadways (low MPG, high emissions)
- There are many cost effective options for reducing methane and diesel emissions
- Projects reduce local air pollution, create jobs, revenues, and cost savings

### Status of LFGE Project Development and Candidate Landfills by State





**Nationwide Summary** 

381 OPERATIONAL Projects
>600 CANDIDATE Landfills

have 18 MMTCE Potential

OPERATIONAL PROJECTS



These data are from LMOP's database as of June 30, 2005.

\*LMOP does not have any information on candidate landfills in this state.

U.S. Virgin Islands

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# U.S. Status of LFG-to-LNG Projects



- 2 operational LFG-to-AFV projects (1 LNG and 1 CNG)
- 5-6 planned projects
- Over 366 mmscfd of LFG potentially available at over 135 landfills (~85 without LFGE projects; ~50 with current projects, but flaring excess gas 1,000 scfm+)
- Rising fuel prices and stricter on-road emissions regulations driving interest in LFG-to-LNG

## **Environmental Benefits for an LNG Refuse Truck**



- Converting a 12-year old diesel refuse truck to LNG yields reductions of:
  - 90% Particulate matter (PM)
  - 80% Non-methane hydrocarbons
  - 70% Oxides of nitrogen (NO<sub>x</sub>)
- Annual GHG reductions from replacing 8,600 gallons of diesel (avg refuse truck usage) with LFG-derived LNG are:
  - Nearly 100 tons CO<sub>2</sub> from the truck
  - Nearly 1,000 tons CH₄ from the landfill

### EPA's Landfill Methane Outreach Program



- Established in 1994
- Voluntary program that creates alliances among states, energy users/providers, the landfill gas industry, and communities

Mission: To reduce methane emissions by lowering barriers and promoting the development of cost-effective and environmentally beneficial landfill gas energy (LFGE) projects.

#### For More Information



#### www.epa.gov/lmop

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